

AMENDMENTS TO THE CLAIMS

This listing of claims, including Amendments thereto, will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1. (Cancelled)
2. (Previously Presented) The mask as claimed in claim 14, wherein the auxiliary pattern is disposed on at least one of a central portion of the first surface and a central portion of the second surface.
3. (Previously Presented) The mask as claimed in claim 14, wherein the auxiliary pattern is of an optical interference material.
4. (Previously Presented) The mask as claimed in claim 14, wherein the auxiliary pattern is of an opaque material.
5. (Previously Presented) The mask as claimed in claim 4, wherein the auxiliary pattern is of chromium.
6. (Currently Amended) The mask as claimed in claim 14, wherein the auxiliary pattern has a line width of 30 nm to ~~200~~ 150 nm.
7. (Currently Amended) A method of fabricating a phase edge phase shift mask, the method comprising:
 - providing a transparent substrate;
 - etching the transparent substrate to form a trench in the substrate, the trench being situated beneath a first surface of the substrate and having a side defined by a

sidewall surface of the substrate and a second surface of the substrate defining a bottom surface of the trench;

forming a layer of material on the substrate at the side thereof in which the trench is formed; and

etching the layer of material to form an auxiliary pattern therefrom on at least one of said first and second surfaces of said substrate as spaced laterally along said at least one of the first and second surfaces from said sidewall surface defining the side of the trench,

wherein when the mask is used to pattern a photoresist layer by passing light therethrough, the auxiliary pattern reduces ~~only a portion of an~~ intensity of the light at areas corresponding to the auxiliary pattern only partially, and a photoresist pattern is formed at an area corresponding to an edge of the trench, and is not formed at areas corresponding to the auxiliary pattern.

8. (Original) The method as claimed in claim 7, wherein said forming a layer of material on the substrate comprises forming a layer of an optical interference material on the substrate.

9. (Original) The method as claimed in claim 7, wherein said forming a layer of material on the substrate comprises forming a layer of an opaque material on the substrate.

10. (Original) The method as claimed in claim 9, wherein the opaque material is chromium.

11. (Currently Amended) The method as claimed in claim 7, wherein said etching ~~a portion of the~~ layer of material comprises forming ~~[[an]]the~~ auxiliary pattern ~~having to have~~ a line width of 30 nm to ~~200~~ 150 nm on at least one of said first and second surfaces of said substrate as spaced laterally along said at least one of the first

and second surfaces from said sidewall surface defining the side of the trench.

12. (Previously Presented) The method as claimed in claim 7, wherein the transparent substrate is quartz.

13. (Cancelled)

14. (Currently Amended) A phase edge phase shift mask comprising:
a transparent substrate having a first surface and a trench constituting a 180° phase shift region, a second surface defining a bottom of the trench, and a sidewall surface extending from the first surface to the second surface and defining a side of the trench; and
an auxiliary pattern disposed on at least said second surface,
wherein when the mask is used to pattern a photoresist layer by passing light therethrough, the auxiliary pattern reduces ~~only a portion of an~~ intensity of the light at areas corresponding to the auxiliary pattern only partially, and a photoresist pattern is formed at an area corresponding to an edge of the trench, and is not formed at areas corresponding to the auxiliary pattern.

15. (Previously Presented) The mask as claimed in claim 14, wherein the transparent substrate is quartz.

16. (Currently Amended) A phase edge phase shift mask comprising:
a quartz substrate having a first surface and a trench constituting a 180° phase shift region, a second surface defining a bottom of the trench, and a sidewall surface extending from the first surface to the second surface and defining a side of the trench;
and
an auxiliary pattern disposed on said first and second surfaces,
wherein when the mask is used to pattern a photoresist layer by passing light

therethrough, the auxiliary pattern reduces ~~only a portion of~~ an intensity of the light at areas corresponding to the auxiliary pattern only partially, and a photoresist pattern is formed at an area corresponding to an edge of the trench, and ~~[[are]]~~ is not formed at areas corresponding to the auxiliary pattern.

17. (Previously Presented) The mask as claimed in claim 16, wherein the auxiliary pattern is of an optical interference material.

18. (Previously Presented) The mask as claimed in claim 16, wherein the auxiliary pattern is of an opaque material.

19. (Previously Presented) The mask as claimed in claim 16, wherein the auxiliary pattern is of chromium.

20. (Currently Amended) The mask as claimed in claim 16, wherein the auxiliary pattern has a line width of 30 nm to 200 150 nm.